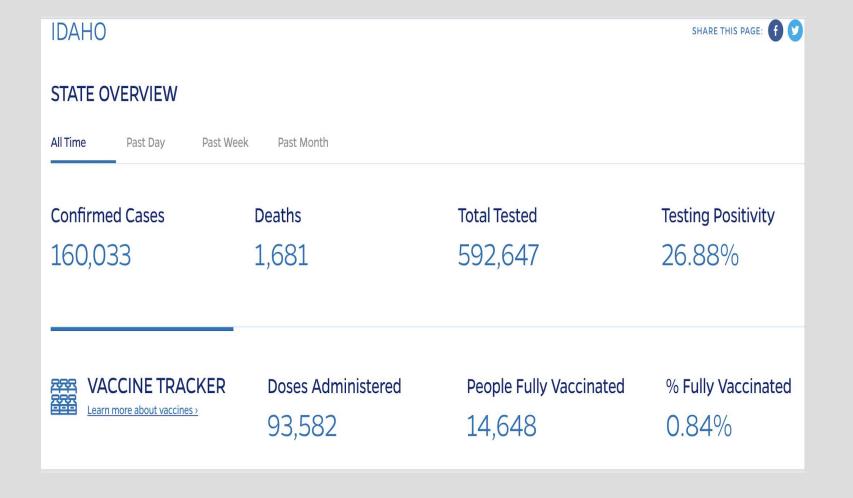
COVID-19 VACCINE

Sandy Mudge, MD, MPHTM Ryan Atwood, MSPAS, PAC

Current Statistics for COVID-19



Global Confirmed 100,221,840

Global Deaths

2,155,052

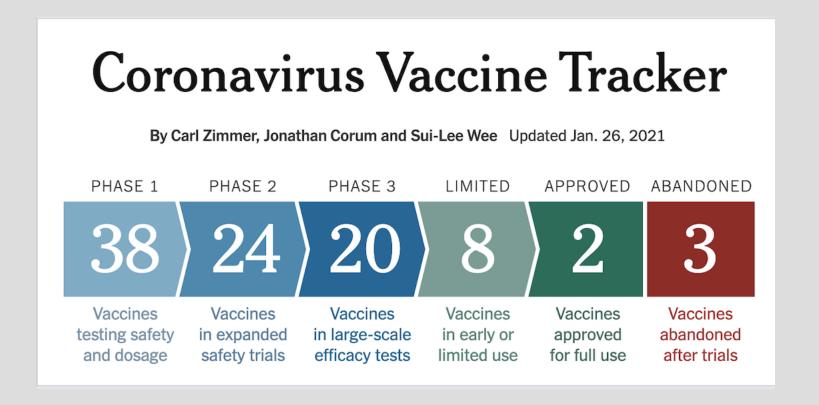
U.S. Confirmed

25,437,225

U.S. Deaths

425,062

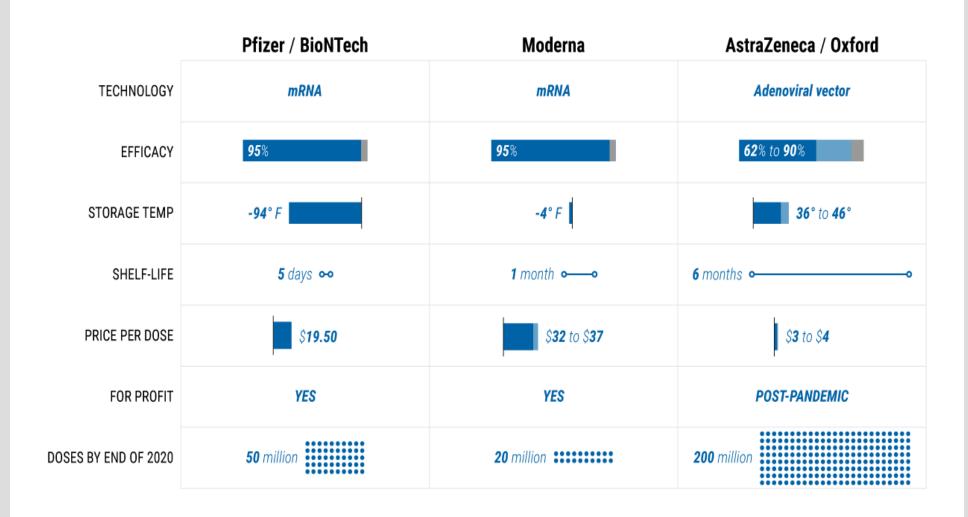
How many vaccines for Covid-19 are there?



Carl Zimmer, Joanathon Corum, Sui-Lee Wee. The New York Times: Coronavirus Vaccine Tracker. Jaunary 19, 2021. https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html. Accessed January 26, 2021.

Vaccine Comparison

Coronavirus | Prospective Vaccine Comparison



Source: American Council on Science and Health © 2020 Geopolitical Futures

STAGES OF CLINICAL TRIALS





LABORATORY STUDIES

A new treatment is tested in animal or cell studies to determine if it would be safe and effective for people.



PHASE 1

Tests the safety of medication and treatment on a small group of people



PHASE 2

Continues safety and effectiveness testing with a slightly larger group



PHASE 3

Studies safety, effectiveness and dosing of treatment on hundreds to thousands of people

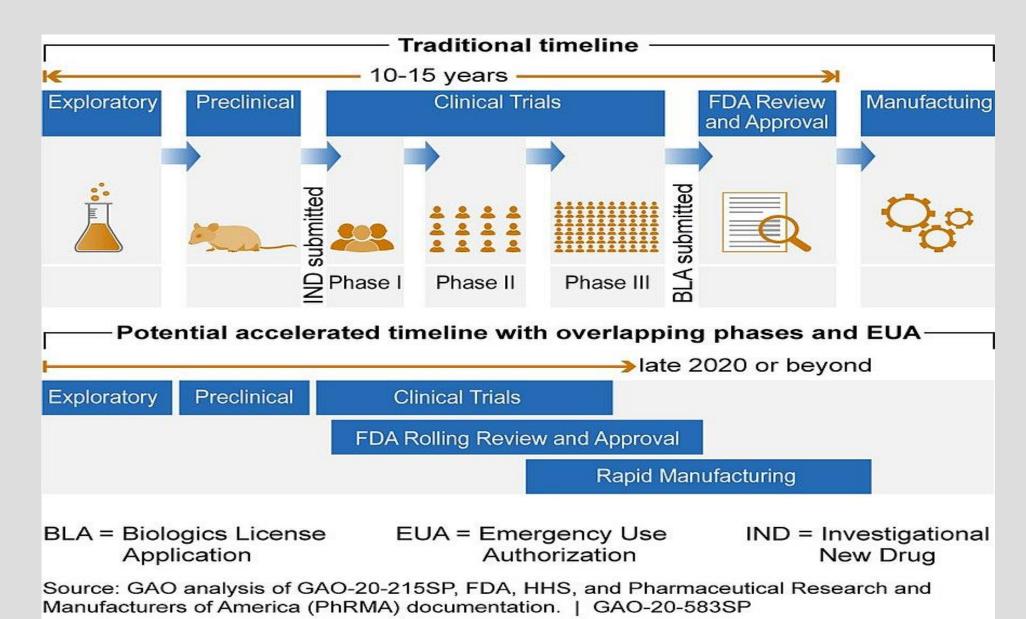


PHASE 4

Studies long-term effectiveness, comparing new treatment to standard treatment

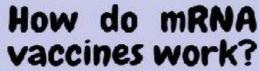


COVID-19 Vaccine Timeline



FDA Emergency Use Authorization for Vaccines Explained

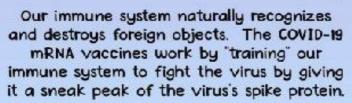
- 1. An Emergency Use Authorization (EUA) is a mechanism to facilitate the availability and use of medical countermeasures, including vaccines, during public health emergencies, such as the current COVID-19 pandemic.
- 2. Protocol for consideration of EUA by FDA existed prior to COVID-19 pandemic
- 3. Strict criteria need to be met for consideration of EUA process
- 4. Approval is in conjunction with independent data safety review board that reviews all scientific and safety data
- 5. To be considered for EUA, vaccine must include minimum 3,000 participants and at least 2 months follow-up post injection (around 90,000 people participated in mRna vaccine trials)
- 6. https://www.fda.gov/vaccines-blood-biologics/vaccines/emergency-use-authorization-vaccines-explained

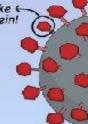


What is mRNA?

Messenger RNA (mRNA) is the cell's "instruction manual" for making proteins. For every protein in our body, there's a strand of mRNA that told our cells how to make it!



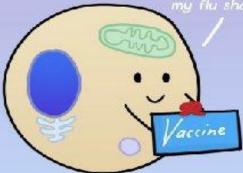




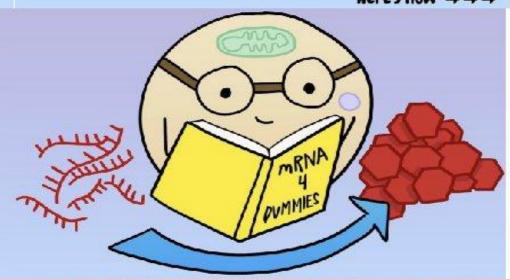
Here's how → →

A (simplified) guide to the

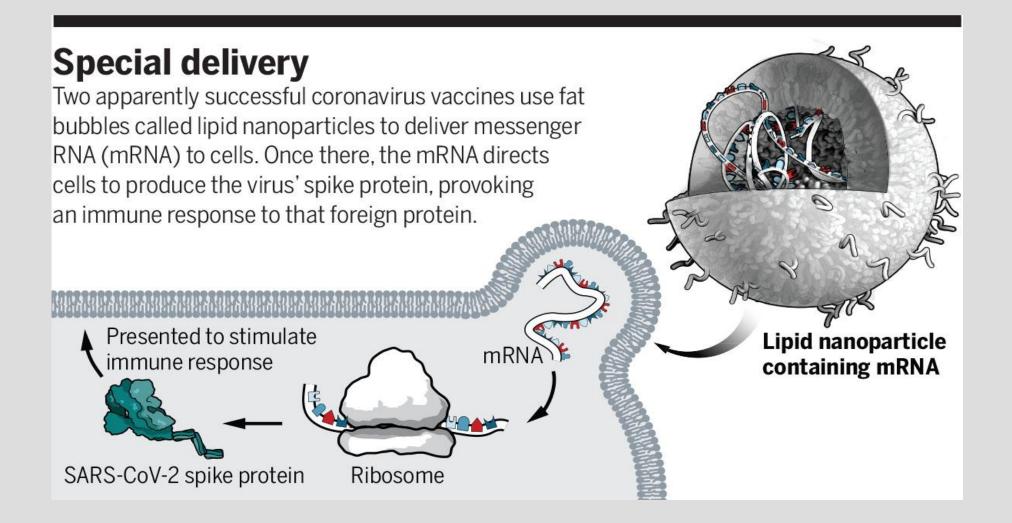
COVID-19 mRNA vaccines

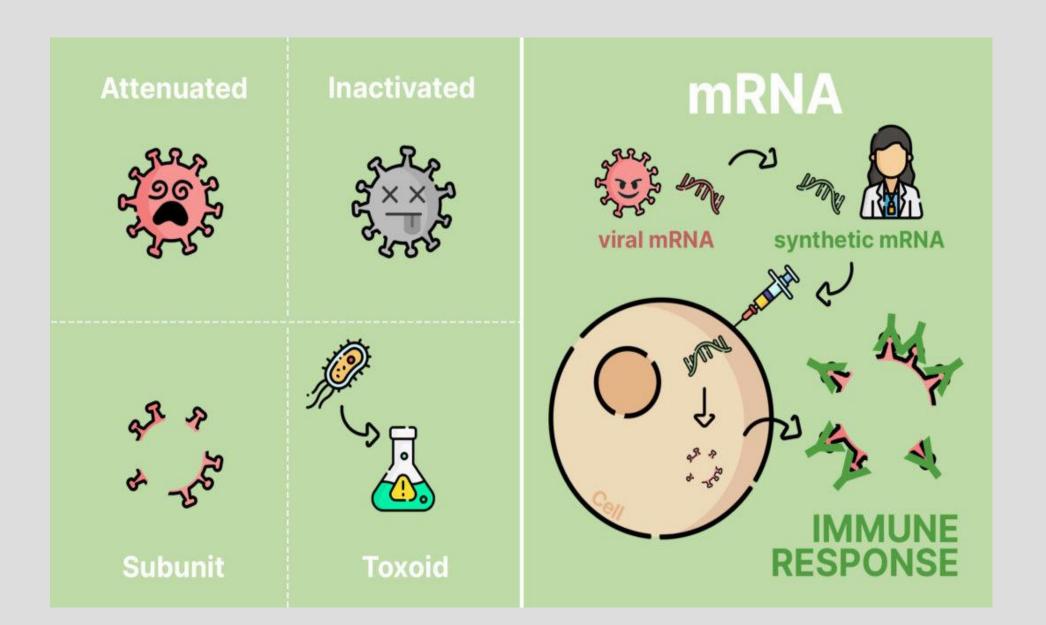


Once the vaccine is injected, our cells take up the mRNA. This mRNA is a one-way blueprint for making the spike protein: it can't integrate into or change our DNA.



From the mRNA "instructions," our cells produce spike proteins. These proteins don't have the viral genes or mechanics that would be required to infect someone with COVID-19.





6 MYTHS

about the COVID-19 Vaccine



MYTH

COVID-19 vaccine alters DNA

FACT

mRNA doesn't enter a cell's nucleus and cannot change DNA



MYTH

It isn't safe because of quick rollout

FACT

Thorough safety standards and trials were met



MYTH

Food allergy, immunocompromised, breastfeeding or pregnant people can't get the vaccine

FACT

These people can get the vaccine



MYTH

I'll get COVID-19 from vaccine

FACT

The vaccine cannot give you the virus - it protects you



MYTH

I've had COVID-19 so I don't need the vaccine

FACT

Natural immunity length is unknown - vaccine fights reinfection



MYTH

No need for mask or social distancing after vaccine

FACT

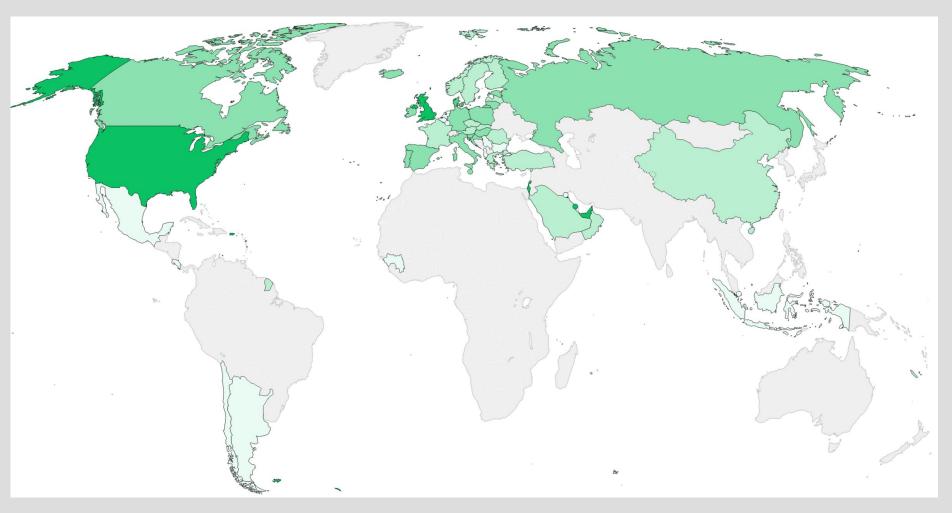
You must still take precautions to help end the pandemic



World Map of Vaccinations

More than 71.3 million doses have been administered in 57 countries

no data 1 2 3 4 per 100 people



Tom Randall, Cedric Sam, Andre Tartar, Christopher Cannon and Paul Murray. Bloomberg.com; More Than 46.2 Million Shots Given: COVID-19 Vaccine Tracker. January 19, 2021. https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/.

What should I expect when signing up for vaccine?

- Both vaccines are 2-dose series either 21 days (Pfizer) or 28 days (Moderna) apart
- Per CDC, 2nd dose for both vaccines can be given up to 6 weeks after initial dose
- There is a 4-day grace period which applies to these vaccines, meaning one can receive 2nd dose Pfizer vaccine at 17 days and Moderna at 24 days. However, CDC states scheduling 2nd dose should be done at recommended interval.
- Full efficacy achieved 1-2 weeks after second dose
- These vaccines are not currently interchangeable per CDC; however, a dose of other vaccine can count in exceptional circumstance.

Other things I should know about COVID vaccines

- Wait 14 days before and after other vaccines to administer
- Can be vaccinated after COVID-19 infection once recovered from illness (minimum 10 days and symptom improvement), although can choose to wait 90 days due to evidence that have natural immunity to reinfection in this window
- Current evidence shows coronavirus mutations happening quickly, and while vaccines still likely effective against known mutations, there is potential of less protection against some variants
- Current recommendation is to continue social distancing and wearing mask after vaccination

Common COVID-19 Vaccine Side Effects

These side effects of the COVID-19 vaccine may affect your ability to do daily activities, but they should go away in a few days.









In most cases, discomfort from fever or pain is normal. Contact your doctor or healthcare provider:

- If the redness or tenderness where you got the shot increases after 24 hours
- If your side effects are worrying you or do not seem to be going away after a few days





If you get a COVID-19 vaccine and you think you might be having a severe allergic reaction after leaving the vaccination site, seek immediate medical care by calling 911.

Source: CDC - https://www.cdc.gov/coronavirus/2019-ncov/vaccines/expect/after.html

Adverse Reactions to mRNA COVID-19 vaccines

- Adverse reactions are usually mild to moderate in intensity and resolve within a few days. 92% of Moderna and 84% Pfizer patients had some reaction, primarily pain at injection site. The most common adverse reactions reported after vaccination in clinical studies included:
 - Pain at injection site
 - Fatigue
 - Headache
 - Muscle pain
 - Joint pain
 - Chills
 - Nausea/vomiting
 - Axillary swelling and tenderness of the vaccination arm
 - Fever
 - Injection site swelling
 - Injection site redness

Vaccine Adverse Reactions

- Per Vaccine Adverse Event Reporting System, 21 cases anaphylaxis occurred in first
 1, 893,360 Pfizer vaccines
 - 17 out of 21 had history of prior severe allergic reactions
- Recent data released reports 10 cases anaphylaxis out of 4,041, 396 doses Moderna given, 5 of which had history of prior severe allergic reaction



Why get vaccinated?

HOW HERD IMMUNITY WORKS



When no one has immunity, contagion has many opportunities to spread quickly.



The more immunity we have in the system, the less often contagion comes into contact with the susceptible.



Spread of contagious disease is contained.











Who shouldn't get COVID vaccine?

- 1. Persons who have experienced anaphylactic reactions (stopped breathing) to other injectable medications or vaccines
- 2. Persons who are allergic to component of vaccine, including polyethylene glycol (PEG)
- 3. Persons who have been treated with monoclonal antibodies or convalescent plasma in last 90 days

4. Precautions:

- History of an immediate allergic reaction to any other vaccine or injectable therapy (i.e., intramuscular, intravenous, or subcutaneous vaccines or therapies not related to a component of mRNA COVID-19 vaccines or polysorbate)
- Moderate to severe acute illness.
- *For the purpose of this guidance, an immediate allergic reaction is defined as any hypersensitivity-related signs or symptoms, such as urticaria, angioedema, respiratory distress (e.g., wheezing, stridor), or anaphylaxis, that occur within 4 hours following exposure to a vaccine or medication.

What about special populations?

Pregnant/lactating women

- There is not currently any safety data in this population as not included in original studies, although some women did become pregnant in trials without adverse event at this point
- Women may choose to be vaccinated in discussion with their physician, especially as risk of severe illness or adverse outcome (ie: preterm birth) is increased with COVID in pregnancy.

Children

- Children down to age 16 can be vaccinated with Pfizer vaccine
- Moderna and other companies are studying vaccines down to age 12 currently
- Likely late 2021 or 2022 before vaccines offered to younger children

Immunocompromised persons

- At increased risk of severe illness with COVID-19
- May receive COVID-19 vaccine unless otherwise contraindicated
- No safety data specifically for this population
- Potential for reduced immune response

Vaccine Prioritization

 Idaho's COVID-19 Vaccine Advisory Committee (CVAC) reviews guidance from the Advisory Committee on Immunization Practices (ACIP) and makes recommendations to the Governor on prioritization/sub-prioritization in each phase

 The Governor reviews recommendations from CVAC and makes the final decision on Vaccine Prioritization and Distribution Timelines

CDH follows Idaho's Vaccine Distribution Timeline approved by the Governor



Idaho's Vaccine Distribution Timeline

coronavirus.Idaho.gov



IDAHO'S VACCINE DISTRIBUTION TIMELINE

GROUP

December - New

- Healthcare personnel (inpatient and outpatient unable to telework)
- Home care providers for older adults and people with high-risk medical conditions
- Emergency medical services
 Long-term care facility
- Long-term care facility residents and staff
- Dentists and staff
- · Pharmacists and staff
- Public health and emergency management response workers who are unable to telework

As of Jan. 15th, more than 46,000 Idahoans in these categories have received the vaccine.

There were an estimated 150,000 Idahoans eligible to receive the vaccine in Group 1. As additional groups become eligible for the vaccine, people in Group 1 can still get the vaccine. Contact your employer or local public health district for more information if you are in Group 1 and need a

GROUP 2

See details to the right

Group 2 can now be vaccinated according to the schedule below. We estimate close to 500,000 Idahoans in Group 2 including frontline essential workers and people aged 65 and older are eligible to receive the vaccine.

Although the vaccine timeline below is what we know today, we may have to adjust schedules and timeframes due to supply or capacity to meet the needs of Idahoans in this category.

Between now and January 31

- First responders (See details.)
- . Pre-K 12th grade school teachers and staff
- · Child care staff
- Correctional and detention facility staff

If you are in this category, you can contact your employer or your local public health district for more information and to schedule an appointment. Find the Vaccine Hotline for your <u>local public</u> health district.

February 1

· Idahoans 65 years and older

There are over 250,000 Idahoans in this group. Depending on supply, a tiered approach may be needed.

Individuals in this group can contact their <u>local public health district</u>, local pharmacy, or primary care clinician to learn more or schedule an appointment.

Late February to Early March (final date to be determined)

- Homeless shelter residents
- Food and agriculture workers (including food processing workers; USDA processing plant inspectors; grocery, convenience store, and food pantry workers.)
- Idaho National Guard if not included earlier
- Manufacturing, public transit, and U.S. Postal Service workers

If you are in this category, you can contact your employer or your local public health district to schedule an appointment or determine options for where vaccines are available for your group.

GROUP 3

(CDC proposed)

- Other essential workers
- Individuals 16–64 years of age with high-risk medical conditions

GROUP 4

(CDC proposed)

 General public/individuals 16-64 years of age We expect to move to Group 3 sometime the end of March or early April.* Group 3 planning will largely depend on our ability to vaccinate Idahoans in Group 2 who choose to receive the vaccine. We anticipate about 470,000 Idahoans are eligible to receive the vaccine in this category.

This group has not been fully evaluated by the Idaho COVID-19 Vaccine Advisory Committee and approved by the Governor.

It is anticipated that individuals 16-64 years of age with medical conditions that increase their risk for severe COVID-19 and essential workers not included in group 2 will be eligible for vaccine.

We expect to move to Group 4 in May.*

This group has not been fully evaluated by the Idaho COVID-19 Vaccine Advisory Committee and approved by the Governor.

Additional Idahoans based on age (prioritization to be determined)

*based on supply available



Idaho's Vaccine Distribution Timeline

IDAHO'S VACCINE DISTRIBUTION TIMELINE

GROUP 1

- Healthcare personnel (inpatient and outpatient unable to telework)
- Home care providers for older adults and people with high-risk medical conditions
- Emergency medical services
- Long-term care facility residents and staff
- Dentists and staff
- Pharmacists and staff
- Public health and emergency management response workers who are unable to telework

As of Jan. 15th, more than 46,000 Idahoans in these categories have received the vaccine.

There were an estimated 150,000 Idahoans eligible to receive the vaccine in Group 1. As additional groups become eligible for the vaccine, people in Group 1 can still get the vaccine. Contact your employer or local public health district for more information if you are in Group 1 and need a vaccine.



Idaho's Vaccine Distribution Timeline

GROUP 2 Started Jan. 12

See details to the right

Group 2 can now be vaccinated according to the schedule below. We estimate close to 500,000 Idahoans in Group 2 including frontline essential workers and people aged 65 and older are eligible to receive the vaccine.

Although the vaccine timeline below is what we know today, we may have to adjust schedules and timeframes due to supply or capacity to meet the needs of Idahoans in this category.

Between now and January 31

- First responders (See <u>details</u>.)
- Pre-K 12th grade school teachers and staff
- Child care staff
- Correctional and detention facility staff

If you are in this category, you can contact your employer or your local public health district for more information and to schedule an appointment. Find the Vaccine Hotline for your <u>local public health district</u>.

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Idahoans 65 years and older

There are over 250,000 Idahoans in this group. Depending on supply, a tiered approach may be needed.

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Late February to Early March (final date to be determined)

- Homeless shelter residents
- Food and agriculture workers (including food processing workers; USDA processing plant inspectors; grocery, convenience store, and food pantry workers.)
- Idaho National Guard if not included earlier
- Manufacturing, public transit, and U.S. Postal Service workers

If you are in this category, you can contact your employer or your local public health district to schedule an appointment or determine options for where vaccines are available for your group.



CDH Vaccine Distribution Plan

- Partner and support Healthcare Providers who have current capability to receive, store, and administer vaccine and who have been approved by the Idaho Immunization Program as a COVID Vaccine Provider
- CDH receives a weekly number of vaccine doses to allocate to approved vaccine providers in our 4 county jurisdiction
- Per the Weekly Allocation Plan, vaccine doses are direct shipped to vaccine providers
- Vaccinating providers follow the Vaccine Distribution Timeline and vaccinate within current priority groups



CDH Weekly First Dose Allocation Numbers

COVID-19 Vaccine Weekly Allocation Numbers

Week Of	Pfizer Doses	Moderna Doses	TOTAL Doses
Week 1 - 12.14.20	4875		4875
Week 2 - 12.21.20	975	9100	10075
Week 3 - 12.28.20	975	3900	4875
Week 4 - 1.4.21		3300	3300
Week 5 - 1.11.21	975	4200	5175
Week 6 - 1.18.21	5850	1500	7350
Week 7 - 1.25.21	2925	3300	6225

^{*2&}lt;sup>nd</sup> doses are automatically direct shipped to providers 3-4 weeks after initial doses depending on type of vaccine



In Summary

Demand for the vaccine far outweighs the current supply

 CDH will continue to follow Idaho's Vaccine Distribution Timeline approved by the Governor outlining the prioritization of groups and timelines

 CDH will continue to follow the current process and allocate available doses weekly to approved vaccine providers



Q: I am allergic to shellfish. Can I get the vaccine?

Yes, the Pfizer and Moderna vaccines do not contain shellfish or other allergens that are sometimes used in vaccines. The only ingredient that a person may be allergic to is polyethylene glycol (PEG). CDC recommends that people with a history of severe allergic reactions not related to vaccines or injectable medications—such as food, pet, venom, environmental, or latex allergies—get vaccinated.

Q: Will I have to get a COVID vaccine every year, like we are encouraged to do with the flu vaccine?

A: The length of immunity from the vaccine is unknown at this time. It is possible that annual or routine vaccines will be needed.

Q: Does CDH have a signup for the vaccine?

A: During the first Phases CDH gathered a list of healthcare entities and organizations that fit in Group One so we could link them with a vaccinator due to the limited number of doses coming to our health district. As we continue to move through subsequent Groups, and particularly when we get to a point where our state and district are receiving more vaccine, people are going to seek vaccine where they might get any other vaccine – their pharmacy, clinics and through healthcare providers.

On the CDH website those who are eligible can find a list of current providers who are receiving vaccine through CDH website and call center.

CDH is not scheduling appointments for vaccinating providers, and due to limited supply some vaccinating providers may not have any appointment slots at this time.

Q: If I get the vaccine can I still get it and transmit it to others?

A: You are not considered immune until 2 weeks after the second dose of vaccine, current U.S. EUA vaccines have shown 90-95% effectiveness in preventing the disease and, if acquired, have shown to have less severe health outcomes. Until you are fully immunized, you may contract COVID from someone else. There is not enough data yet to show if someone who is immunized can transmit the virus without getting sick themselves. Evidence shows us that the likelihood should be much lower, however, more information is needed.

Q: When and how will an expanded list of who fits in what subgroup be available?

A: CDH uses the CVAC recommendations which are voted on and approved by the Governor. We reference existing resources to help us further define these categories that are quite broad, such as CDC's ACIP Vaccine Recommendations which can be found here: ACIP COVID-19 Vaccine Recommendations | CDC

Q: With the limited supply, how will I know I will get my second dose on schedule?

A: Second doses are direct shipped to providers in our district who administered dose #1. There is no indication these doses will not be available for your second appointment.

Q: Does the vaccine have any effect on fertility?

A: There is no evidence at this time that infertility is related to antibodies from COVID-19 infection or vaccines.

Contact Info



For more Information and Updates on the COVID-19 Vaccine in Idaho, visit the links below



If you have additional questions, you can reach our Call Center at 208-321-2222 Monday through Friday from 8:30 am to 4:30 pm, Saturdays in January from 8:30 am to 12:30 pm

Central District Health Enrolled Vaccine Providers List:

https://cdh.idaho.gov/pdfs/cd/Coronavirus/Resource%20Docs/vaccine/enrolled-COVID19-vaccine-providers.pdf

Central District Health Vaccine Information Sign Up Form:

https://lp.constantcontactpages.com/su/8DO2cZ9/vaccine

Central District Health Vaccine information page:

https://cdh.idaho.gov/covid-vaccine.php

State of Idaho Vaccine information page (find updated estimated vaccine timeline, here):

https://coronavirus.idaho.gov/covid-19-vaccine/

Centers for Disease Control and Prevention (CDC) Vaccine Information:

https://www.cdc.gov/vaccines/covid-19/index.html

